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14. ABSTRACT
Expeditionary commands are unique elements within the United States Navy. Unlike ships, submarines and aviation squadrons, expeditionary commands do not deploy as a single unit. These units will have personnel deploy to different locations at different times for varying durations. Because of this unique deployment structure, the normal logistics delivery method was not the most effective method for delivering logistical support. After careful study and preparation, Explosive Ordnance Disposal (EOD) forces commissioned a logistical support unit which quickly proved to be a more operationally effective method of logistical support to expeditionary units. This new command designated, Explosive Ordnance Disposal Expeditionary Support Unit TWO, provides financial, requisition, inventory, vehicle and boat maintenance, dive support, medical, communication and weapons to all East Coast EOD units.

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Executive Summary

Title: Navy Expeditionary Support Unit

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Thesis: Transformation to an independent support command presents the most operationally effective method for delivering logistical support to navy expeditionary units.

Discussion: A logistics system designed for ships, submarines and squadrons that deploy as a single unit, is not the most effective method for providing logistics to Navy expeditionary units. The expeditionary units' unique structure and deployment cycle make the normal logistics structure of embedded supply, maintenance, communications, and materiel departments less effective. Manning at expeditionary units does not provide enough personnel to deploy with each operational team; therefore, support must be provided from garrison. When a unit command element is also deployed, the challenge of providing logistics to multiple locations becomes more problematic. The unit command element will need the logistics support element to deploy with them; however, this does not leave sufficient personnel in garrison to support the operational teams still in the workup and training phases. The logistics team is forced to provide support from a war zone back to the operational teams still in the United States. In addition to supply support, maintenance, communication and materiel, personnel must also provide support and maintain equipment for operational teams in garrison, while they themselves are deployed. Aside from the time differences and limited communications while deployed, the logistics personnel should be focused on the deployed operational teams not the teams in the United States.

Conclusion: Consolidation of functions under an independent support command is the most operationally effective way to provide logistical support to expeditionary units. To ensure continuity of purpose though, the independent logistics command should report to the same operational commander as the units it is designed to support. This paper focuses on the success which Explosive Ordnance Disposal Expeditionary Support Unit (EODESU) TWO demonstrated.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENT AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

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Preface

My interest in expeditionary logistics began with my assignment to Explosive Ordnance Disposal (EOD) Group TWO. I was nine months in as the Group TWO Supply Officer when the Commodore, Rear Admiral Frank Morneau, pulled me aside after a retirement ceremony and mapped out (on a cocktail napkin) his thoughts for transforming expeditionary logistics. His idea was to move organic supply, maintenance and other support functions from the EOD Mobile Units to an independent logistics command. From this inauspicious beginning, I put together a transformation team and we systematically evaluated the benefits and detriments of moving each support function to a new command. After nine months of evaluation and preparation I commissioned this new logistics command as Commanding Officer, Explosive Ordnance Disposal Expeditionary Support Unit (EODESU) TWO. Within six months of our commissioning, EODESU TWO was declared an unmitigated success; not by ourselves, but rather by the units we supported. At the time of our commissioning, EODESU TWO was only the third operational unit commanded by a Navy Supply Officer. Our success laid the groundwork for other expeditionary units to pattern similar commands. This paper was written to outline the benefits of this format for delivering logistics and serve as a guide for other expeditionary units.

I would like to thank Rear Admiral Morneau for his vision, leadership and trust in establishing the first expeditionary support unit, as well as my research advisor, Dr. Rebecca Johnson, for her wonderful perspectives and insights which I integrated into my paper. I would also like to thank Dr. Johnson for her infinite patience in helping me with this project.

I would also like to thank my lovely wife of 20 years, Barbara, for her support and understanding during our geographical separation and the times I had to stay away while researching and writing the paper. My children, Justin, Nathan and Maria were my inspiration to complete the program and provided the inspiration as well as motivation during my visits home.

Abstract

Expeditionary commands are unique elements within the United States Navy. Unlike ships, submarines and aviation squadrons, expeditionary commands do not deploy as a single unit. These units will have personnel deploy to different locations at different times for varying durations. Because of this unique deployment structure, the normal logistics delivery method was not the most effective method for delivering logistical support. After careful study and preparation, Explosive Ordnance Disposal (EOD) forces commissioned a logistical support unit which quickly proved to be a more operationally effective method of logistical support to expeditionary units. This new command designated, Explosive Ordnance Disposal Expeditionary Support Unit TWO, provides financial, requisition, inventory, vehicle and boat maintenance, dive support, medical, communication and weapons to all East Coast EOD units.

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INTRODUCTION

Navy expeditionary units have long been unique among the other types of forces within the Department of the Navy. Unlike the other 'types' of forces, which include surface ships, submarines, and aviation, the expeditionary forces do not deploy with all personnel and equipment in tow. Expeditionary units historically deployed in teams with the command element remaining in garrison to take care of their 'man, train and equip' responsibilities. This worked fairly well for years; however, after 9/11 the expeditionary force command elements were deployed to Afghanistan and Iraq. This left a void in garrison to continue the 'man, train and equip' responsibilities for the elements still in the training phase.

Navy commands historically included their own supply, maintenance, medical, communications and transportation departments. Navy expeditionary commands were no different. Once deployed it became problematic to continue managing equipment and functions that remained in garrison. This study will show that by shifting logistical requirements to an independent support command, logistical support can be provided more effectively to the expeditionary units. This will also allow these units to focus fully on their operational commitments. The support unit would provide all logistical requirements – financial management, procurement, inventory control, vehicle and boat maintenance, medical and intelligence support, communications support, weapons, ammunition and explosives, as well as dive locker support. Expeditionary units do not have the manning to effectively perform these functions for deployed personnel while simultaneously providing support in garrison. Because of these challenges, the t*ransformation to an independent support command presents the most operationally effective method for delivering logistical support to navy expeditionary units.*

BACKGROUND

To understand why the Navy's normal method for logistics delivery is not sufficient for expeditionary units, it is important to understand how the process operates. This section explains the Navy supply system, a part of logistics, and outlines the other parts and how they are deficient in supporting expeditionary units.

In its 200 year history, the Department of the Navy has developed a highly functional supply system. The Navy supply system is meeting the needs of ships, aviation squadrons and submarines around the world every day. In the realm of naval logistics, no one performs this task better. The system performs at such a high level because it consists of a well-defined process, shipboard based logisticians, intermediate stations and a procurement branch that all work together seamlessly. Personnel at each level understand their role and how they fit within the larger system. This section starts at the lowest level in the supply system, where a requirement is generated, and explains the system cycle.

At the lowest level, the unit generates a requisition after a piece of equipment breaks and a part is required for the repair. The mechanic assigned to repair the equipment identifies the part requirement, generates a request in the automated repair / supply information system and submits the requirement to the unit supply department. The supply department validates and approves the requirement and releases a requisition to the procurement branch at the intermediate level.[1] The procurement branch receives the requisition and procures the requested part. The part will be shipped directly to the unit submitting the requisition. The procurement timeline is based on the urgency placed on the requisition by the requesting unit. This, of course, is a simplified example of a system with significant flexibility. For items with a total value less than $3000 the unit itself can purchase the required material with a government credit card.

One of the reasons the system has been so successful is that throughout the process the unit that generated the requirement maintains oversight of the procurement. This is critical because they are the unit that requires the material to make the repair and will not be satisfied until the requirement has been delivered. Within the unit both the supply department and the mechanic assigned to repair the equipment are waiting for the part delivery. The better the working relationship between the mechanic (who needs the material) and the supply department personnel the more efficient the system works.

Another reason the system has been successful is that in a shipboard setting, all personnel deploy together with all of their equipment. This enables the supply department personnel and mechanics to interact continuously on requirements. This also allows the mechanics to maintain continuous maintenance on all equipment.

THE PROBLEM

Like ships, submarines and squadrons, expeditionary units contain supply, maintenance, medical, transportation, dive, weapons and communication departments. Each of these departments has their own leadership – an officer, leading chief petty officer (LCPO) and leading petty officer (LPO). The officer would be a Lieutenant (O-3), with a Chief Petty Officer (E-7) as the LCPO and a First Class Petty Officer (E-6) as the LPO. These units are typically short on personnel and struggle to complete all requirements. In addition to personnel, funding and equipment have been longstanding shortfalls for expeditionary units.

Unlike ships, expeditionary units do not deploy as a command. That is to say, unit personnel deploy at different times, to different locations, for different durations, plus they rarely take all of their equipment with them. In this scenario, the unit supply department must support

personnel and equipment deployed to various locations, as well as personnel and equipment that have not deployed. Because supply department personnel and mechanics are not co-located the process becomes difficult. Communication limitations as well as time differences add layers of 'fog' to the support process.

LOGISTICAL SUPPORT UNITS

This leads to the question – how do expeditionary units support their unique deployment cycles, become more efficient in the use of existing funding, personnel and equipment without hurting operational effectiveness? Navy expeditionary units are not the first to wrestle with this problem. During the 1970s the Marine Corps pulled logistic functions from individual commands and established combat service support units. The effectiveness of this concept was affirmed during a January 1977 combat service support conference.[2] Some specific functions included: streamlining combat service support at all echelons, reducing span of control of Combat Service Support (CSS) functions and delineating precise lines of command and control of division level CSS functions.

In addition to the Marines, the Navy Special Warfare (SEAL) community determined in early 2000 that consolidating logistical functions in a support command would free the operational units of the logistical burden and optimize procurement dollars. The SEALs aligned into two logistical support groups, one on each coast.[3]

The most recent transformation and the focus of this paper come from the Navy Explosive Ordnance Disposal (EOD) community. Their goal was to make the logistics process more efficient without losing operational effectiveness. In the EOD example, a significant focus was placed on ensuring the logistical unit did not lose sight of the people they were supporting.

This was achieved by ensuring the new EOD logistical supported units, EOD Expeditionary Support Unit (EODESU) ONE and TWO report to the same operational commander as the units they supported. The supported units: EOD Mobile Units (EODMU), Mobile Dive and Salvage Units (MDSU), as well as the EODESUs report to their respective EOD Group Commander. This ensures the EODESUs remain closely linked and focused on supporting the EOD Mobile Units and MDSU. In addition, EOD Group TWO (East Coast) forces ensured the new unit was commanded by someone who understood logistics integration, a Navy Supply Officer, and the EOD Group TWO Materiel Officer was installed as the unit Executive Officer. EOD Group ONE (West Coast) did not follow the same model initially, but is now in the process of making this change. This paper focuses on the success of the EODESU TWO model.

EODESU TWO was aligned to support resource management, control the process for development of expeditionary support, capitalize on synergies of consolidated personnel, equipment and functions, integrate man, train, and equip functions of distributed expeditionary warfare capabilities, and optimize adaptive force packaging.[4] Additionally, EODESU TWO is capable of providing a combination of different technical experts to the operational unit to meet specific deployment requirements. Specifically, EODESU TWO delivers critical and unique capabilities focused on EOD and expeditionary mission; expands areas of influence and situational awareness in support functions to complement current operations; provides a broad range of skills required to build relationships and access for expeditionary forces; optimizes interdependencies in the shared expeditionary environment; and supports / leads the development of core maritime expeditionary capability by eliminating seams that will result in a more capable and ready EOD force.

There were multiple areas where logistical support was delivered inefficiently before being consolidated into EODESU TWO, which became more problematic when EOD mobile units began deploying the command element. For brevity this paper will focus on the benefit of a separate logistical command element and the four most critical areas of logistics: supply, materiel, maintenance and communications. The following sections will provide greater detail on those critical areas.

COMMAND ELEMENT

The challenges faced by the operational commanding officer's (CO) Title X responsibilities to 'man, train and equip' his unit for operational success are daunting.[5] While the unit commanding officers are exceptionally qualified to meet their responsibilities and do so readily while in garrison, it becomes a significant challenge once the CO is deployed and still responsible for equipment and personnel back in the training cycle. While deployed the CO remains responsible for leadership, training, advancement, discipline, facility management, maintenance spot checks, command advancement and non-judicial punishment for non-deployed personnel.[6] Plus, the unit CO is responsible for programs that cannot be deployed; such as: Arms, Ammunition and Explosives (AA&E), Electronic Key Management System (EKMS), and Planned Maintenance System (PMS) oversight on non-deployed equipment.

The decision to consolidate logistics in a single command is not an easy one. To the operational commanding officer it means losing control of several functions vital to the success and safety of his men. There has to be a high level of trust that the equipment, supplies and men required to support the mission will be available at the required time and in the condition necessary for success. To ensure the demand is met on time, every time a careful and well

thought out plan, to ensure that the processes, leadership, structure are in place must be developed and implemented by the support unit.

By moving support (supply, maintenance, weapons, communications, etc.) personnel and equipment to an expeditionary support unit, the support unit CO takes the command responsibilities for non-deployed personnel. This allows the operational CO to focus on the operational demands, as well as deployed personnel and equipment.

SUPPLY

There is no area that will benefit more from consolidation than Supply. Each unit must maintain a separate budget, financial records, purchase card program, requisitions and warehouses. Each of these functions has administrative requirements that present significant time and oversight demands. These requirements are the same regardless of the dollar amount and quantities involved and each presents a magnitude of potential savings if they could be consolidated at a single unit. This section discusses the areas of supply that can be consolidated and why each area presents a relative efficiency gain from consolidation. The areas include: financial, procurement, government purchase card program, and warehouse operations.

Financial. The financial process starts with developing a budget. This is the proposed expenditures each unit requires to operate. It should include material purchases (durable items and consumables), repair, travel and administrative expenses. Durable items are goods that have a sustainable life, (i.e., they will last longer than a few months), can be repaired to a new status and would include: weapons, sights, communication equipment, dive gear, vehicles, boats, computers, and many additional like items. Consumables are items that once purchased will be used until they no longer perform satisfactorily and then are disposed. Repair items include

material/parts used to repair durable goods. Travel and administrative costs are self-evident. Budgets are built for each department within the unit. Once a budget is built by the unit, it is submitted to the group commander for consolidation with other like units and then the group level budget is submitted through the chain of command for final inclusion in the Department of Defense budget.

Allocation of funds is the second phase of the financial process. After the budget is approved by Congress and signed into law by the President, funds are allocated down the chain of command to each unit as an 'operating target' or OPTAR. Individual units 'spend' their OPTAR funds to procure items necessary for the unit's operations. The procurement process will be discussed in the next section, but every time the unit procures an item, the cost of the procurement is decremented from the balance in their financial system. To document their expenditures, each unit is required to submit a weekly 'transaction listing' (TL) or a listing of all financial expenditures. At the end of each month, units must submit a complete budget report or Budget OPTAR Report (BOR). This process continues throughout the fiscal year, which runs from October to September for the federal government. At the end of the fiscal year each unit will have to consolidate all expenditures and ensure they have a zero balance on their OPTAR, then close out their financial system and submit their end of fiscal year (EOFY) reports. The weekly TLs take two people about an hour each. The end of month BOR takes two to three people 4-6 hours to complete and submit the report. The EOFY report takes two-four people 6-8 hours to complete and submit the report. Each report takes a mid-level enlisted sailor to process the report then it is reviewed by the unit's Supply Officer. For East Coast EOD forces this process was completed at each of the five commands. By consolidating supply functions into a

single command, the process was completed once; this presented a significant overall time savings.

Procurement. Every unit has to procure items to perform their role in national defense. Like units, such as EOD, will generally procure the same common items. These items include durable goods, consumables, repair parts, and personal gear (PGI) such as uniforms, boots, etc. It takes no additional effort to order these items for five units on a single requisition, but it would take 5 times the level of effort for each unit to order these like items on their own. Procurement through normal supply channels is accomplished by the person requesting an item, submitting a request through their unit's supply system. Supply personnel then determine if it is a valid request, is technically correct (does the requested item meet the stated need), and funds are available to complete the purchase. Once requisitions are submitted they must be tracked to ensure the funds obligated results in an item being procured and supplied to the requesting unit. This process is known as order reconciliation and represents an ongoing effort at the unit. This process also requires the unit to report on a monthly basis to higher levels the status of outstanding requisitions. The unit's supply leadership must reconcile and return to the procurement authority a monthly Summary Filled Order Expenditure Disposition Listings (SFOEDL) and Unfilled Order Listings (UOL), accounting for the status of all items procured but not received.

Not all required items are available through the supply system. Such items are procured directly from commercial sources in a process collectively known as open purchase. Open purchases can be accomplished by sending the purchase request to a central procurement organization such as Fleet and Industrial Supply Center (FISC), from central warehouses (SERVMARTS) which also have commercial sources available, federal websites or by going to

vendors directly. If the open purchases are sent through FISC or the websites they can be processed with a 'normal' requisition. If the open purchase is routed through SERVMART or the vendor then the supply department will need to use a government credit card for the purchase. Military units, like any organization, have certain recurring requirements such as copier services, cellular telephone services, etc. A single command can obtain these services for all units under a single contract, saving the unit's time on procurement and oversight. This is another example where the man-hours expended to procure these required services can be cut significantly when consolidated in a unit such as EODESU TWO.

Government Purchase Card Program. The government purchase card program was a significant step in making urgent procurements easier and timelier. The program provides a credit card that a unit can use to buy material from commercial sources as long as the total procurement is less than $3000.[7] Credit card bills are paid by the Defense Financial Accounting Service (DFAS) with funds 'drafted' from the unit's OPTAR. Designated purchase cardholders within the command are issued the credit cards in their name by a central bank, currently Citibank for the Navy. By regulation, the purchase cardholder makes the purchase only after it has been approved the units Approving Official (AO). The AO will typically approve purchases for several cardholders. The AO is typically a senior level NCO. The AO must vigilantly monitor purchases made by the cardholders to ensure fraudulent activity is caught early and reported to the chain of command. All AOs report to an Agency Program Coordinator (APC). The APC is responsible for the purchase card program and is typically a mid-level officer. By regulation the cardholder to AO ratio cannot exceed 7:1.[8] Regardless of the number of cardholders or AOs each program must submit monthly reports on all purchases and reconcile items procured to ensure they are paid on time. The AO and APC are responsible for ensuring

there is no fraudulent activity within the program. This requires close scrutiny of all purchases.

Consolidation of this program within a single logistics command presents a significant savings in man-hours, since cardholders and AOs assigned to individual units were rarely fully employed. Regardless of the procurement volume each unit had the same level of monthly reporting. EODESU TWO established a single purchase card program at the same time the unit's program was disestablished. EODESU TWO provided the APC for oversight and each unit had an AO and cardholder authorized to procure items under the EODESU TWO program. EODESU TWO was responsible for program oversight and reporting. They were also responsible for ensuring funds were properly allocated to pay the bills.

By establishing the single purchase card program, EODESU TWO allowed each unit to purchase their requirements, without being burdened with program oversight. By placing the cardholders and AO at the unit, each unit CO retained the ability to make normal administrative purchases with virtually no burden.

Warehouse Operations. With the possible exception of financials, no area represented a larger potential savings in consolidation of functions at ESU than warehouse operations. Before ESU, each unit maintained similar items in inventory. They each maintained a separate inventory database, stocked the same material and provided customer service to the operators / technicians. There were essentially four separate warehouses with the same material; collectively this was about four times the requirement and as such represented a significant amount of capital tied up in stagnant inventory. Consolidation of the individual warehouses into a single warehouse allowed the unit to reduce the overall stocking levels significantly.

Consolidating Supply functions at EODESU TWO allowed bulk procurement for many common items, presented an overall reduction in man-hours spent on the administrative

requirements of financial management, enabled the operation of a more efficient consolidated warehouse operation and once again freed the operational COs from the burdens of financial / logistical oversight.

MATERIEL

At the unit level the materiel department is responsible for tracking and maintaining EOD specific equipment, ensuring it is operationally ready when needed. The unit materiel department also monitors the unit's Table of Allowance (TOA), identifying ways to improve the TOA and sending these recommendations to the EOD Group headquarters. At the EOD Groups (ONE and TWO), the materiel departments managed what was on the EOD TOA (this included the EOD mobile units and shore detachments). Since the unit materiel departments included identifying TOA items for procurement, the separate units would often buy their own gear in small quantities. Where the TOA did not specify a particular brand of equipment, individual units would often purchase slightly different gear.

Within the EOD Mobile Unit community the materiel department was headed by an EOD Officer and was charged with managing the unit's TOA. Those items included vehicles, boats, dive gear, weapons and some EOD specialty equipment. This was not an effective use of the skills and training bestowed at great expense on an EOD Officer. The Navy spent hundreds of hours and hundreds of thousand dollars on EOD training to defuse / disable bombs, missiles, Improvised Explosive Devices (IEDs), insertion techniques and small arms / close quarters battle training for all elements (air, land, water). In addition, while this officer was well trained in the equipment's use in most instances the training did not extend to an expertise on maintenance. Within the units, the real subject matter experts on equipment maintenance lay within the NCO

corps (Chief Petty Officers). While Navy Chief Petty Officers are some of the most capable individuals in the military, they were simultaneously responsible for the equipment, personnel, training, discipline, equipment repairs and procurement. The sheer volume of requirements did not allow for enough time to be spent on each.

Consolidating these functions allowed EODESU TWO to bring in experts to maintain the equipment and the EOD officers to return to an operational focus. EODESU TWO moved vehicles and boats to a separate maintenance department (addressed in the Maintenance section), dive gear was moved to the operations department and weapons were kept under the purview of the materiel department although it was renamed readiness department.

Readiness Department. Under EODESU TWO, the newly established Readiness Department was headed by an EOD Warrant Officer who specialized in Materiel functions. EODESU TWO's Readiness Department was responsible for TOA Management and Weapons. TOA management needs to be explained as two separate functions. One is the TOA management, managing what is on the TOA. This list specifies the equipment EOD is authorized to procure and maintain in the performance of their mission. This list was historically maintained by the EOD Group Materiel Officer, under the commodore's purview. While the function moved to ESU, it remained under the Commodore; however, the burden of maintaining the TOA shifted from the Group Staff to ESU. This represented a significant burden shift off of the Group staff, allowing them to concentrate on operational matters. The second function of TOA management includes procuring, maintaining and storing the actual equipment. As explained earlier, several of the TOA items were shifted to other departments within ESU, certain EOD specific equipment remained under the readiness department because it required the EOD Officer's specific knowledge. Centralization of TOA equipment storage / issue, in

conjunction with centralization of procurement, enabled EODESU TWO to standardize TOA purchases. Before EODESU TWO's establishment, units would procure items that met the TOA description but were different other EOD units. This disparity caused problems with interoperability, movement of EOD technicians between the units as part of the normal assignment process and with maintenance dollars. Within a short period, EODESU TWO was able to eliminate these disparities. The rapid development of new technologies, especially in response to changing enemy tactics, does present a valid reason for procuring items not listed on the TOA. This process of testing and evaluating new equipment is important to keeping the EOD operators safe, but must be conducted under controlled circumstances. EODESU TWO established a process for procurement of TOA items under a strict 'test and evaluation' process. By ensuring tight controls of these procurements the 'test and evaluation' results can be correctly incorporated into TOA updates and shared with all EOD units; thus maintaining their effective interoperability.

Weapons were consolidated at EODESU TWO into a single armory, which paid immediate dividends due to the overwhelming safety and reporting requirements. While weapons were maintained by the individual units, they each had to perform a significant amount of administrative reporting. Consolidation reduced these requirements by 75%. In addition, consolidation enabled efficiencies in weapon inspections and maintenance. These efficiencies turned into training and maintenance improvements. Future improvements include raising the training level for weapons technicians (Gunner's Mates ~ GM) to allow them to perform higher levels of maintenance. These higher levels of maintenance would mean returning fewer weapons for depot level maintenance, cutting costs and improving availability.

Arms, Ammunition and Explosives (AA&E). AA&E is the overall program management of weapons, ammunition and explosives. All three items have very tight restrictions on accountability, safety and reporting. These requirements are so tight due the inherent danger this material presents. Prior to EODESU TWO's establishment this program was retained at the EOD group headquarters since unit requirements had to be consolidated at the group level for submission to the central reporting site. This oversight at the group level consumed a significant portion of the Commodore's time. By moving this centralized management requirement to EODESU TWO, the burden was shifted from the Group Commodore to the EODESU TWO CO. The program was managed for the Group Commodore, thus allowing the Commodore to focus on operational responsibilities.[9]

By moving TOA, weapons and AA&E management to EODESU TWO, TOA procurements and the change process were standardized, management and oversight were reduced by a 1/5 (one list, one armory, etc.), valuable EOD skills were returned to the operational side and a tremendous burden was shifted from the operational group and unit commanders to the EODESU TWO CO.

MAINTENANCE

Maintenance departments at EOD units are focused on various vehicles, boats and craft. Each unit has approximately the same equipment, which they must maintain, document in maintenance records and report information about the program manager. Regardless of the number of boats or vehicles the administrative burden is essentially the same.

Since each unit had their own department, the same work was being performed five times, once at each command. The maintenance manning levels were also perpetually slim,

which led to a focus on physical repairs that sometimes went undocumented. Once the units started falling behind on maintenance records upkeep, they were not able to become current.

The unit maintenance departments were managed by EOD officers. When the EODESU TWO Maintenance Department was established it was under the leadership of a Surface Warfare Maintenance Officer. This relieved a burden on the EOD Officer community by returning an operator to a deployable status. More importantly, by moving all vehicles and boats to EODESU TWO, facilities and leadership were consolidated. This consolidation enabled a concentrated focus on vehicle and boat repairs. Junior personnel received improved training under closer supervision, which was reflected in their performance level.[10] The improvements in oversight paid immediate dividends in a higher operational and maintenance levels of the equipment. In addition, the larger motor pool enabled a better rotation / maintenance plan, which improved the service life of this equipment. Results for this area will become more evident in the coming years. Certain positions (LCPO, LPO, dispatcher, maintenance coordinator, license coordinator) within a motor pool are required regardless of the number of vehicles or personnel, with EODESU TWO's establishment these positions are filled at one command not four.

Consolidation enabled EODESU TWO to begin performing the vital tasks of maintenance record keeping. As an example, by regulation each vehicle must have a maintenance record. While the records existed for the most part, they were not always up to date. This vital record is now being maintained. In addition, ESU took this lesson and started the same type of maintenance records for all boats. Across the board, the level of maintenance being performed on vehicles and boats improved dramatically.

COMMUNICATIONS

Prior to EODESU TWO's establishment each unit procured, stored and maintained their communications equipment. In most cases equipment was procured from a common source so there was not the disparity in equipment types which caused problems in other areas. The problem in the communications (COMMS) area was due to a lack of senior leadership and other manning shortfalls. The manning shortfalls translated into insufficient time for equipment upkeep and technician training. Communication personnel were also assigned automated data processing (ADP) equipment accountability and maintenance, as well as coordinating Navy-Marine Corps Intranet (NMCI) support. These were two additional areas where a shortfall in training developed into premature equipment failures and accountability problems.

Consolidating communications at EODESU TWO enabled a higher concentration of senior leaders improving equipment oversight and training. In addition, the department was headed by a Communications Warrant Officer, whereas the unit communications departments were led by NCOs. His experience and knowledge bore fruit in the level of training and operational proficiency demonstrated by the communications personnel. During operational demonstrations the EODESU TWO mobile communications teams were able to quickly set up and obtain operational status in the field. In addition, consolidation of COMMS at EODESU TWO tied the equipment procurement to centralized financials. This enabled EODESU TWO to eliminate deviations in the type of equipment being procured and ensure compatibility within EOD but also with the other services.

The larger communications equipment pool allowed for a better rotation plan and improved equipment maintenance. The concentration of personnel also enabled more robust training improving operational and maintenance capabilities and proficiencies. Other areas

within the Communications Department, such as automated data processing (ADP) / computer support and Navy Marine Corps Intranet (NMCI) support also realized qualitative improvements. These two areas were severely underserviced and the situation had become dire. Computer systems were antiquated and slow, with frequent service loss. A concentrated effort was launched to upgrade computers, software and related equipment. The process was hampered by the lack of records for equipment moves and disposal. It took strong leadership and concentration groups six months to track and identify system moves (all over the country), retrieve equipment and institute a consolidated upgrade plan. Once again, tying equipment to the financial source ensured compliance would be met.

MEASURING SUCCESS

The effectiveness level for logistic operations is normally quantitatively based. This a natural measure for logisticians; however, this is not always the best indicator of success. The real measure for military logisticians should be qualitative - the operational success of its units. This is not to imply that numbers do not matter. We should always be conscious of financial and personnel expenditures as well as equipment downtime, but that is not the best method of determining success where lives are at stake. The services have limited resources that must be protected to ensure they are used in the most effective manner. When personnel are counted as one of the resources and probably the most valuable, it is vital to invest appropriately to ensure their protection. By having multiple commands draw from the consolidated equipment at EODESU TWO an overall reduction in quantities was achieved, enabling a greater application of man hours to each of the remaining pieces and achieving an overall higher readiness level.[11] In addition, by reducing overall quantities, phased replacement costs were reduced as well.[12]

From a unit commander's perspective, EODESU TWO provided a marked increase in logistical support agility, flexibility and timeliness.[13] "ESU enhanced our ability to rapidly respond to complex, demanding, and dynamic operational environments as missions and requirements from multiple operational Commanders changed. ESU improved our unity of effort to complete complicated missions in stride while Commander's intent, objectives, and end states changed. ESU's responsiveness and timeliness contributed directly to mission success both in garrison and while deployed."[14]

CONCLUSION

The role of logistics and maintenance within expeditionary units is inherently different from other Navy units. While ships and squadrons deploy as a unit, expeditionary units do not. In addition, mission requirements for most expeditionary units are so diverse that not all equipment authorized on their TOAs will be utilized during any given deployment; however, this equipment cannot simply be set aside until the unit returns. It requires maintenance and reporting for longevity of service.

While a consolidated logistics command makes perfect sense for expeditionary units it would not be as effective for ships or squadrons. One of the principal reasons is the same argument for keeping the expeditionary support units under the operational force commander. While it is important to take advantage of consolidation of effort in a central procurement, maintenance and storage facilities it is vital that the operational force commander play a pivotal role in managing these functions. By placing the logistical unit at the same level of the units it supports and reporting directly to the group commander, it will remain focused on the operational requirements and not as much on the empirical measurements. The bottom line on

effectiveness for the logistics command should remain its ability to enable the operator to successfully perform their job and their unit's ability to accomplish the mission. With that scope of responsibility in mind, it can be safely argued that the *most effective method for delivering logistical support to navy expeditionary units is through an independent logistical support unit.*

Endnotes:

[1] Naval Supply Systems Command, *Afloat Supply Procedures*, NAVSUP P-485, (Arlington, VA: Naval Supply Systems Command), 1-11.

[2] Headquarters, U.S. Marine Corps. Combat Service Support Reorganization Conference. Washington, D.C., January 17, 1977.

[3] Robert Gantt, Captain, U.S. Navy, SC, Commanding Officer, Naval Special Warfare Logistical Support Unit TWO, conversation with author, February 2007.

[4] U.S. Department of Defense, *Explosive Ordnance Disposal Expeditionary Support Unit TWO Concept of Operations,* (Norfolk, VA: Department of the Navy), 8.

[5] U.S. Code, *Armed Forces*, Title 10 U.S. Code, Section 5001, January 5, 2009.

[6] U.S. Department of the Navy, *U.S. Navy Regulations* (Washington, DC: Department of the Navy, 1990), 47.

[7] U.S. Department of the Navy, *Policies and Procedures for the Operation and Management of the Government Wide Commercial Purchase Card Program (GCPC),* NAVSUP 4200.99 (Mechanicsburg, PA: Naval Supply Systems Command), 1-10.

[8] U.S. Department of the Navy, *Policies and Procedures for the Operation and Management of the Government Wide Commercial Purchase Card Program* (GCPC), NAVSUP 4200.99 (Mechanicsburg, PA: Naval Supply Systems Command, October 13, 2006), 1-14.

[9] Frank Morneau, Captain, U.S. Navy, Commander, Explosive Ordnance Disposal Group TWO, conversation with author, February 2009.

[10] Eric Frampton, EODCM, U.S. Navy, Command Master Chief, Explosive Ordnance Disposal Group TWO, conversation with author, July 2008.

[11] John Coffey, Commander, U.S. Navy, Commanding Officer, Explosive Ordnance Disposal Mobil Unit TWO, conversation with author, March 2010.

[12] Marc Carmichael, Lieutenant Commander, U.S. Navy, Deputy Material Officer, Naval Expeditionary Combat Command, conversation with author, January 2010.

[13] Joseph Polanin, Commander, U.S. Navy, Commanding Officer, Explosive Ordnance Disposal Mobil Unit TWELVE, conversation with author, March 2010.

[14] Polanin, March 2010.

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